WELD REINFORCEMENT TABLE
DOE Nuclear Applications

Vessels, Pumps, and Valves

Thickness of Base Material	Maximum Reinforcement, in.
Up to 1 in.	3/32
Over 1 in. to 2 in.	1/8
Over 2 in. to 3 in.	5/32
Over 3 in. to 4 in.	7/32
Over 4 in. to 5 in.	¼
Over 5 in.	5/16

Piping

Thickness of Base Material	Maximum Reinforcement, in.	
	Column 1	Column 2
Up to 1/8 in.	3/32	3/32
Over 1/8 in. to 3/16 in.	1/8	3/32
Over 3/16 in. to ½ in.	5/32	1/8
Over ½ in. to 1 in.	3/16	5/32
Over 1 in. to 2 in	¼	5/32
Over 2 in.	The larger of 1/8 x the width of the weld or ¼ in.	5/32

For double-welded butt joints, the limitations on the reinforcement given in Column 1 of the above table shall apply separately to both inside and outside surfaces of the joint. For single-welded butt joints, the reinforcement given in Column 2 shall apply to the inside surface and the reinforcement given in Column 1 shall apply to the outer surface. The reinforcement shall be determined from the higher of the abutting surfaces involved.

Structural Supports

Thickness of Base Material	Maximum Reinforcement, in.
Up to 1 in.	3/32
Over 1 in. to 2 in.	1/8
Over 2 in. to 3 in.	5/32
Over 3 in. to 4 in.	7/32
Over 4 in. to 5 in.	¼
Over 5 in.	5/16

ALIGNMENT TOLERANCE TABLE
DOE Nuclear Applications

Piping and Components

Thickness of Base Material	Longitudinal Butt Weld	Circumferential Butt Weld
Up to ½ in.	¼ thickness	¼ thickness
Over ½ in. to ¾ in.	1/8 in.	¼ thickness
Over ¾ in. to 1 ½ in.	1/8 in.	3/16 in.
Over 1 ½ in. to 2 in.	1/8 in.	1/8 thickness
Over 2 in.	Lesser of 1/16 thickness or 3/8 in.	Lesser of 1/8 thickness or¾ in.

Structural Supports

Thickness of Base Material	Maximum Offset
Up to ¾ in.	¼ thickness
Over ¾ in. to 1 ½ in.	3/16 in.
Over 1 ½ in. to 2 in.	1/8 thickness
Over 2 in.	Lesser of 1/8 thickness or ¾ in.

Note: The thickness of the base material is the nominal thickness of the thinner section at the weld joint.